

The diagram illustrates a digital video recorder system (1) with the following components and connections:

- Antenna (3):** Receives **BS-RF SIGNALS** and provides input to the **TUNER (4)**.
- Remote Control (12):** Provides input to the **I/O (13)**.
- Internal Bus (2):** A central horizontal bus connecting various internal modules.
- 7 Conditional Access Processing Section:** Contains:
 - Demodulation Processing Section (5):** Receives input from the tuner and outputs to the bus.
 - IC Card (21):** Connected to the bus.
 - Descrambler (20):** Receives input from the bus and outputs to the bus.
- 6 MPEG-2 TS Demultiplexer:** Receives input from the bus and outputs to the bus.
- 8 MPEG-2 AAC Audio Decoder:** Receives input from the bus and outputs to the bus.
- 10 MPEG-2 Video Decoder:** Receives input from the bus and outputs to the bus.
- 11 Program Audio Section (Amplifiers, etc.):** Receives input from the bus and outputs to the bus.
- 9 Display Processor:** Receives input from the bus and outputs to the bus.
- 16 RAM (SI/PSI·EPG Text Information, etc.):** Connected to the bus.
- 15 ROM (Fonts, etc.):** Connected to the bus.
- 14 Flash Memory (EPG Graphics, etc.):** Connected to the bus.
- 17 CPU:** Connected to the bus.
- 18 Modem:** Connected to the bus and provides output to the **19 Public IC Network**.
- 22 Display:** Receives input from the bus and outputs to the bus.
- 23 Speakers:** Receives input from the bus and outputs to the bus.
- 24 Storage Section:** Contains:
 - 24a VTR:** Receives input from the bus and outputs to the bus.
 - 24b DVD-RW:** Receives input from the bus and outputs to the bus.
 - 24c HDD:** Receives input from the bus and outputs to the bus.

102260-9145660

FIG. 2

25

TO-VIEW/RECORD TABLE										
ENTRY NO.	ENTRY TYPE	CHANNEL NO.	PROGRAM TITLE	PROGRAM CODE	DATE	START TIME	CHANGE FLAG	END TIME	CHANGE FLAG	RECORDING MODE
1	VIEW	130ch	PRO BASEBALL "OOVSAΔ"	4564545	MAY 13	13:00		13:45		—
2	RECORD	40ch	MOVIE "MARS"	4545453	MAY 13	14:00		15:00		3 TIMES LONGER
3	VIEW	145ch	NEWS	5464650	EVERYDAY	15:15		15:45		—
4	RECORD	56ch	CARTOON "O X"	1456466	MAY 13	16:00		17:00		STANDARD
5	VIEW	24ch	WEATHER	5846465	EVERY SATURDAY	17:00		17:05		—
6	RECORD	130ch	MOVIE "CONTACTOR"	4654545	MAY 13	20:00	1	21:00		3 TIMES LONGER
7	...	...	...	...	...	...		...		...

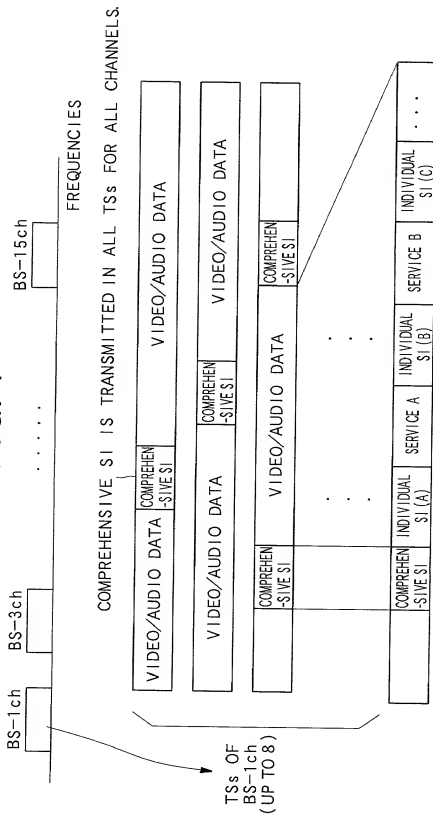
202260-51429660

FIG. 3

26

FAVORITES TABLE					
ENTRY NO.	CHANNEL NO.	PROGRAM TITLE	PROGRAM CODE	DATE	START TIME END TIME
1	45ch	NEWS	4545655	MAY 13	13:30 14:00
2	24ch	VARIETY"XXZ"	4454665	EVERY SATURDAY	14:00 15:30
3	150ch	SOCCER"XX VS □□"	2125445	MAY 13	16:00 18:00
4	50ch	DRAMA"FFG"	1046465	EVERYDAY	14:00 14:30
5	145ch	DOCUMENTARY".."	5454454	MAY 13	15:00 16:00
6	56ch	PRO WRESTLING	6546454	MAY 14	18:00 19:00
7	...	...	...	...	... ...

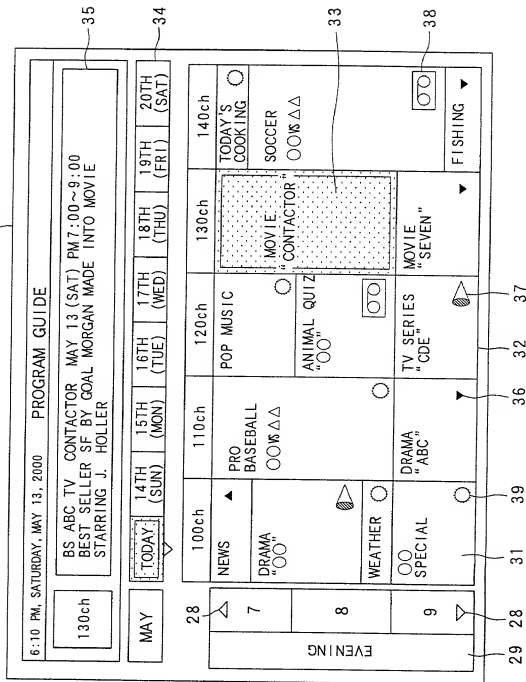
FIG. 4



INDIVIDUAL SI IS TRANSMITTED ONLY IN TS OF EACH SERVICE.

FOR EACH CHANNEL, MAXIMUM OF 8 MPEG-2 TSs ARE TRANSMITTABLE.
(UP TO 8 FOR TV, UP TO 16 FOR RADIO; UP TO 24 ITEMS OF DATA)

30



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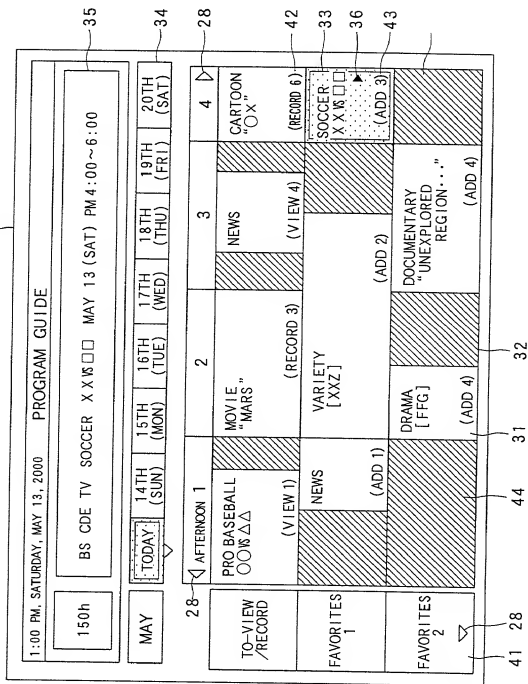


FIG. 7

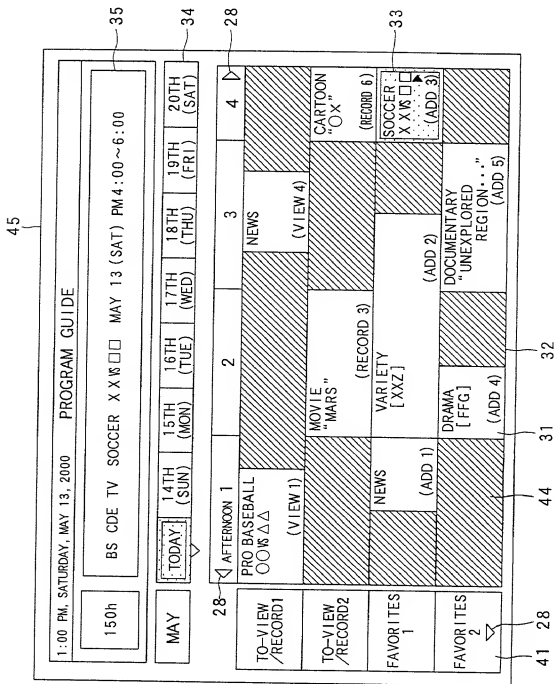


FIG. 8A

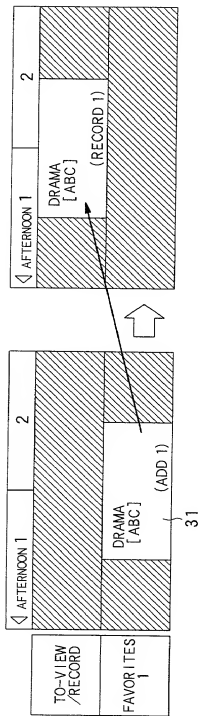


FIG. 8B

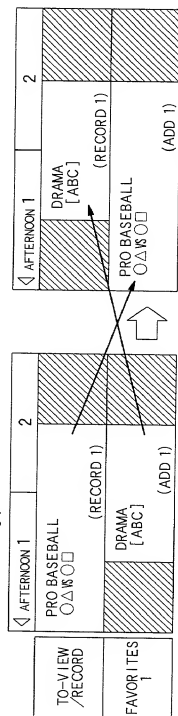


FIG. 8C

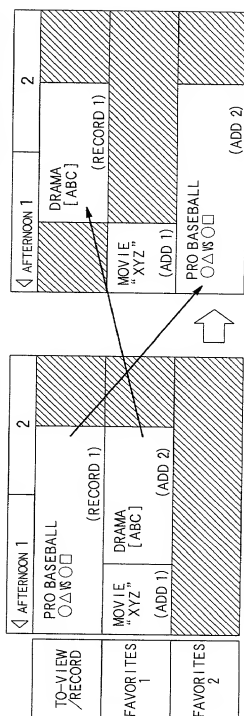


FIG. 9A

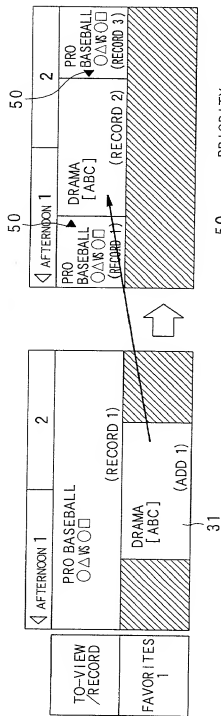


FIG. 9B

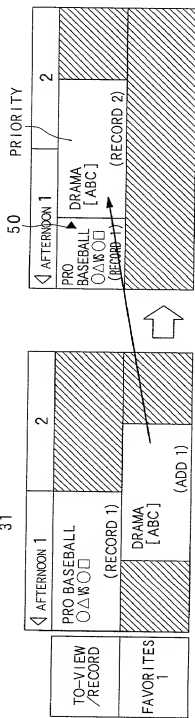


FIG. 9C

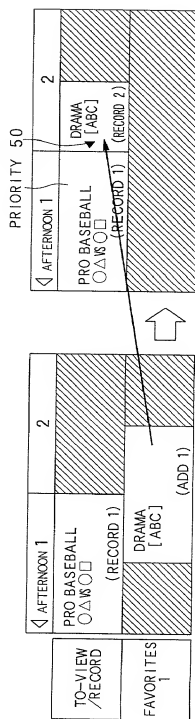
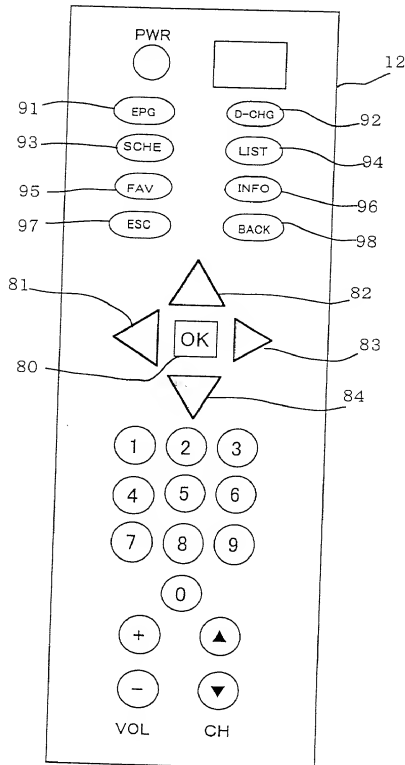


FIG. 10



00953416-092701

FIG. 11

TO-VIEW/RECORD LIST

ENTRY NO.	ENTRY TYPE	CHANNEL NO.	PROGRAM TITLE	DATE	START TIME	END TIME	RECORDING MODE
1	VIEW	130ch	PRO BASEBALL "OOVSΔΔ"	MAY 13	13:00	13:45	—
2	RECORD	40ch	MOVIE "MARS"	MAY 13	14:00	15:00	3 TIMES LONGER
3	VIEW	145ch	NEWS	EVERYDAY	15:15	15:45	—
4	RECORD	56ch	CARTOON "O ×"	MAY 13	16:00	17:00	STANDARD
5	VIEW	24ch	WEATHER	EVERY SATURDAY	17:00	17:05	—
6	RECORD	130ch	MOVIE "CONTACTOR"	MAY 13	19:00	21:00	3 TIMES LONGER
7	RECORD	120ch	RECORD 1	MAY 13	22:00	23:00	3 TIMES LONGER

FIG. 12

FAVORITES LIST

ENTRY NO.	CHANNEL NO.	PROGRAM TITLE	DATE	START TIME	END TIME
1	45ch	NEWS	MAY 13	13:30	14:00
2	24ch	VARIETY"XXZ"	EVERY SATURDAY	14:00	15:30
3	150ch	SOCCER"XX VS □□"	MAY 13	16:00	18:00
4	50ch	DRAMA"FFG"	EVERYDAY	14:00	14:30
5	145ch	DOCUMENTARY".."	MAY 13	15:00	16:00
6	56ch	PRO WRESTLING	MAY 14	18:00	19:00
7	31ch	ADD 1	MAY 14	20:00	21:00

FIG. 13

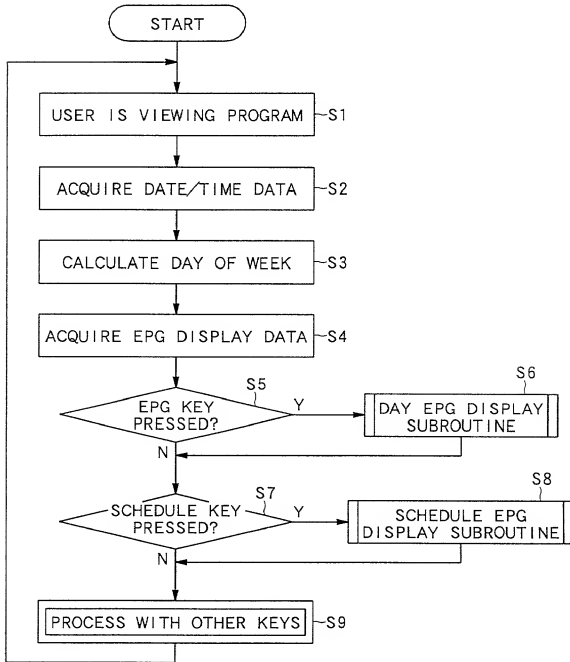


FIG.14

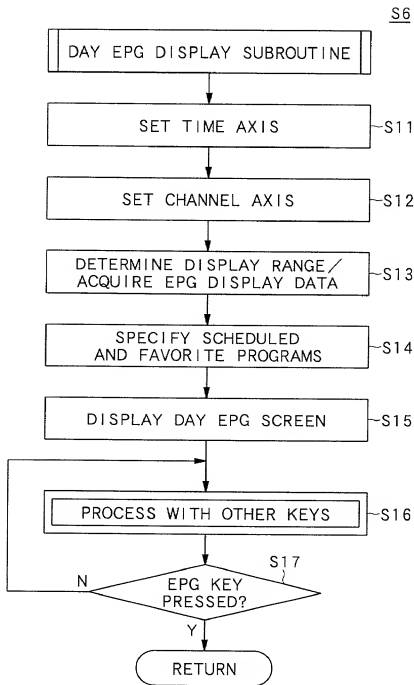
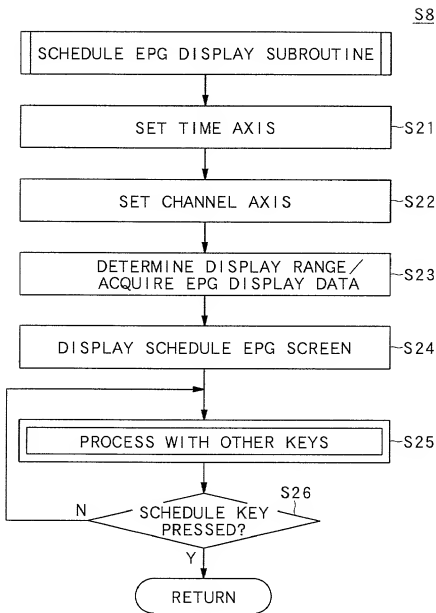
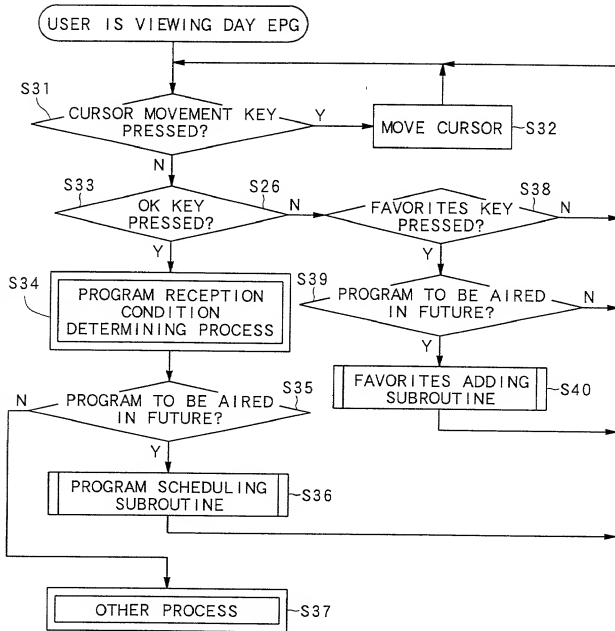


FIG.15



0000415-000201
10/26/01 09:43:00

FIG.16



096345-092701

S36

FIG.17A

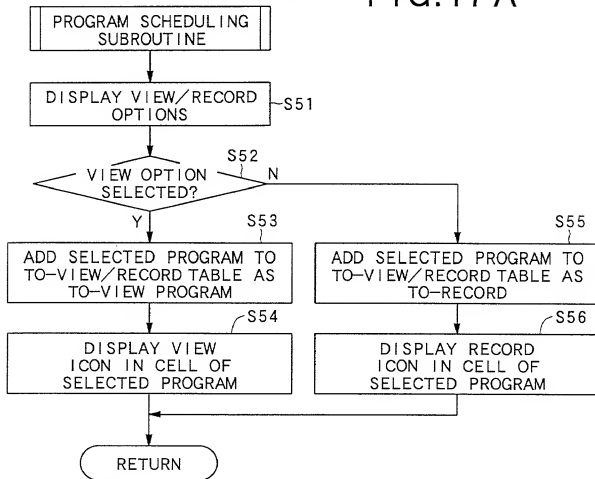
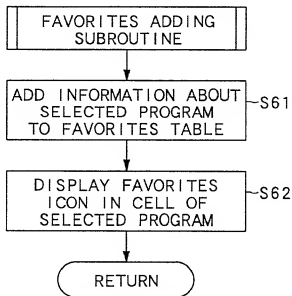


FIG.17B

S40



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graph TD
    Start([USER IS VIEWING SCHEDULE EPG]) --> S70{S70  
CURSOR MOVEMENT KEY  
PRESSED?}
    S70 -- Y --> S71[MOVE CURSOR]
    S71 --> S70
    S70 -- N --> S72{S72  
OK KEY  
PRESSED?}
    S72 -- N --> Exit1(( ))
    S72 -- Y --> S73[DISPLAY CELL  
MOVE/DELETION OPTIONS]
    S73 --> S74{S74  
MOVE OPTION  
SELECTED?}
    S74 -- N --> S75[DELETE CELL]
    S75 --> S76[REFLECT ACTION IN  
TO-VIEW/RECORD AND  
FAVORITES TABLES]
    S76 --> Exit2(( ))
    S74 -- Y --> S77{S77  
SELECTED PROGRAM IS  
FAVORITES ENTRY?}
    S77 -- N --> S79[S79  
SCHEDULED PROGRAM  
CHANGING SUBROUTINE]
    S77 -- Y --> S78[S78  
FAVORITE PROGRAM  
CHANGING SUBROUTINE]
    S78 --> Exit3(( ))
    S79 --> Exit4(( ))

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S78

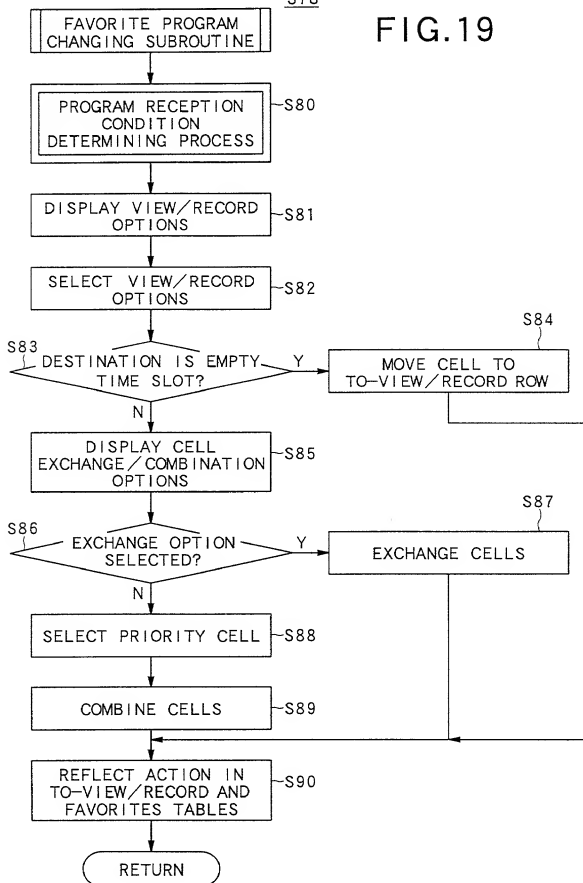


FIG.20

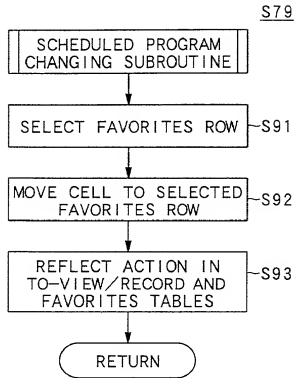


FIG. 21

25

TO-VIEW/RECORD TABLE										
ENTRY NO.	ENTRY TYPE	CHANNEL NO.	PROGRAM TITLE	PROGRAM CODE	DATE	START TIME	CHANGE FLAG	END TIME	CHANGE FLAG	RECORDING MODE
1	RECORD	130ch	PRO BASEBALL*OΔVSOC*	6897879	JUNE 13	13:00		15:00		3 TIMES LONGER
2	...	...	...	...	...	...		...		...

(A)



25

TO-VIEW/RECORD TABLE										
ENTRY NO.	ENTRY TYPE	CHANNEL NO.	PROGRAM TITLE	PROGRAM CODE	DATE	START TIME	CHANGE FLAG	END TIME	CHANGE FLAG	RECORDING MODE
1	RECORD	130ch	PRO BASEBALL "OΔVSOC"	6897879	JUNE 13	13:00		13:30	1	3 TIMES LONGER
2	RECORD	70ch	DRAMA "ABC"	7877999	JUNE 13	13:30		14:30		3 TIMES LONGER
3	RECORD	130ch	PRO BASEBALL "OΔVSOC"	6897879	JUNE 13	14:30	1	15:00		3 TIMES LONGER
4	...	...	...	...	...	...		...		...

(B)

FIG. 22

TO-VIEW/RECORD LIST						
ENTRY NO.	ENTRY TYPE	CHANNEL NO.	PROGRAM TITLE	DATE	START TIME	END TIME RECORDING MODE
1	RECORD	130ch	PRO BASEBALL "O.A.V.S.O."	JUNE 13	13:00	13:30 3 TIMES LONGER
2	RECORD	70ch	DRAMA "ABC"	JUNE 13	13:30	14:30 3 TIMES LONGER
3	RECORD	130ch	PRO BASEBALL "O.A.V.S.O."	JUNE 13	14:30	15:00 3 TIMES LONGER
...						

FIG. 23

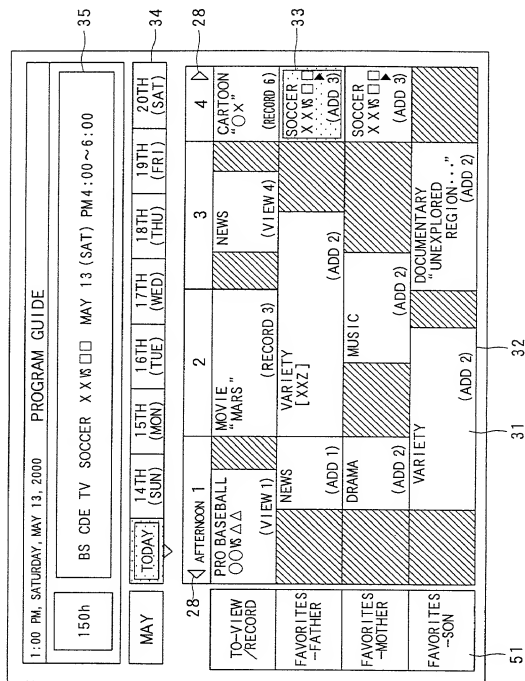


FIG. 24

